

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A fuel cell comprising an anode, a solid electrolyte membrane and a cathode,

wherein the solid electrolyte membrane consists of one or plural kinds of layered silicate minerals, and a density of the layered silicate minerals is controlled in a range of 1.0 to 1.8 Mg/m³, and

wherein the layered silicate minerals are at least one selected from the group consisting of montmorillonite, beidellite, illite, and sericite.

2. (Canceled)

3. (Canceled)

4. (Withdrawn) A method for fabricating a solid electrolyte membrane of one or plural kinds of layered silicate minerals and intercalation compounds of the layered silicate minerals for the fuel cells under a control of the density and impregnated liquid contents because a molecular sieve effect is brought into action.

5. (Currently Amended) A membrane-electrode assembly (MEA) consisting of a solid electrolyte membrane consisting of one or plural kinds of layered silicate minerals, and electrodes in which electron conductive particles showing a high catalytic activity are dispersed, wherein a density of the layered silicate minerals is controlled in a range of 1.0 to 1.8 Mg/m³, and

wherein the layered silicate minerals are at least one selected from the group consisting of montmorillonite, beidellite, illite, and sericite.

6. (Original) An electrochemical cell comprising: a membrane-electrode assembly (MEA) as set forth in Claim 5; and diffusion layers of porous material which also works as a support member of MEA, an anode separator, a cathode separator and a water separator, which are arranged on the faces of MEA.

7. (Original) A fuel cell which operates with an organic fuel, comprising a combination of the electrochemical cells as set forth in Claim 6.

8. (Original) The fuel cell of Claim 7, wherein the organic fuel is ethanol.

9. (Original) The fuel cell of Claim 7, wherein the organic fuel is methanol.

10. (Original) The fuel cell of Claim 7, wherein the organic fuel is natural gas (methane).

11. (Original) The fuel cell of Claim 7, wherein the organic cell is liquefied petroleum gas (propane).

12. (Original) The fuel cell of Claim 7, wherein the organic fuel is gasoline.

13. (Original) A fuel cell which operates with hydrogen, comprising a combination of the electrochemical cells as set forth in Claim 6.